

Serial Number:

09/254864

0596

CRF Processing Date:

Edited by: MIA

Verified by:

☐

Changed a file from non-ASCII to ASCII

10/1

☐

Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐

Edited a format error in the Current Application Data section, specifically:

7

☐Edited the Current Application Data section with the actual current number. The number input by applicant was ☐ the prior application data; or ☐ other _____☐

Added the mandatory heading and subheadings for "Current Application Data".

☐

Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an

☐

Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____

☐

Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were

☐

Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

☐

Corrected subheading placement. All responses must be on the same line as each subheading. If applicant placed a response below the subheading, this was moved to its appropriate place.

☐

Inserted colons after headings/subheadings. Headings edited included: _____

☐

Deleted extra, invalid, headings used by an applicant, specifically: _____

☐Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at ☐ page numbers throughout text; ☐ other invalid text, such as _____☐

Inserted mandatory headings, specifically: _____

☐

Corrected an obvious error in the response, specifically: _____

☐

Edited identifiers where upper case is used but lower case is required, or vice versa.

☐

Corrected an error in the Number of Sequences field, specifically: _____

☐

A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐Deleted ~~ending~~ stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly due to a PatentIn bug). Sequences corrected: _____☒

Other:

~~CRF3~~ Examined Diskette Contents. CRF3
error - Reprocessed diskette
contents - *Diskette contents did
not match original sequence listing

*Examiner: The above corrections must be communicated to the applicant in the first O
Action. DO NOT send a copy of this form.

RAW SEQUENCE LISTING

DATE: 10/29/2001

PATENT APPLICATION: US/09/854,864

TIME: 10:07:13

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10292001\I854864.raw

3 <110> APPLICANT: THEILL, LARS EYDE
 4 YU, GANG
 6 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS OF MATTER CONCERNING APRIL/G70,
 BCMA,
 7 BLYS/AGP-3, AND TACI
 9 <130> FILE REFERENCE: A-686B
 11 <140> CURRENT APPLICATION NUMBER: US 09/854,864
 C--> 12 <141> CURRENT FILING DATE: 2001-09-11
 14 <150> PRIOR APPLICATION NUMBER: US 60/204,039
 15 <151> PRIOR FILING DATE: 2000-05-12
 17 <150> PRIOR APPLICATION NUMBER: US 60/214,591
 18 <151> PRIOR FILING DATE: 2000-06-27
 20 <160> NUMBER OF SEQ ID NOS: 31
 22 <170> SOFTWARE: PatentIn version 3.1
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 1465
 26 <212> TYPE: DNA
 27 <213> ORGANISM: Homo sapiens
 29 <400> SEQUENCE: 1

30	gccaaccttc cctccccaa ccttggggcc gccccagggt tcctgcgcac tgccctgttcc	60
32	tcctgggtgt cactggcagc cctgtccttc ctagaggagc tggaacctaa ttctcctgag	120
34	gctgagggag ggtggagggt ctcaaggcaa cgctggcccc acgacggagt gccaggagca	180
36	ctaacagtac ccttagcttg ctttcctcct ccctcctttt tattttcaag ttctctttta	240
38	tttctccttg cgtaacaacc ttcttccctt ctgcaccact gcccgtaccc ttaccgcgcc	300
40	cgccacctcc ttgctacccc actcttgaaa ccacagctgt tggcagggtc cccagctcat	360
42	gccagcctca tctcctttct tgctagcccc caaaggcct ccaggcaaca tggggggccc	420
44	agtcagagag ccggcactct cagttgccct ctggttgagt tggggggcag ctctgggggc	480
46	cgtggcttgt gccatggctc tgctgaccca acaaacagag ctgcagagcc tcaggagaga	540
48	ggtgagccgg ctgcagggga caggaggccc ctcccagaat ggggaagggt atccctggca	600
50	gagtcctccg gagcagagtt ccgatgccct ggaagcctgg gagagtgggg agagatcccg	660
52	gaaaaggaga gcagtgtctc ccaaaaaaca gaagaagcag cactctgtcc tgcacctggt	720
54	tcccattaac gccacctcca aggatgactc cgatgtgaca gaggtgatgt ggcaaccagc	780
56	tcttagcggt gggagaggcc tacaggccca aggatatggt gtccgaatcc aggatgctgg	840
58	agtttatctg ctgtatagcc aggtcctgtt tcaagacgtg actttcacca tgggtcaggt	900
60	ggtgtctcga gaaggccaag gaaggcagga gactctattc cgatgtataa gaagtatgcc	960
62	ctcccaccg gaccggcct acaacagctg ctatagcgca ggtgtcttcc atttacacca	1020
64	aggggatatt ctgagtgtca taattcccc ggcaaggcg aaacttaacc tctctccaca	1080
66	tggaaccttc ctggggttg tgaaactgtg attgtgttat aaaaagtggc tcccagcttg	1140
68	gaagaccagg gtgggtacat actggagaca gccaaagact gagtatataa aggagaggga	1200
70	atgtgcagga acagaggcgt cttcctgggt ttggctcccc gttcctcact tttccctttt	1260
72	cattcccacc ccctagactt tgattttacg gatattctgc ttctgttccc catggagctc	1320
74	cgaattcttg cgtgtgtgta gatgaggggc gggggacggg cgccaggcat tgttcagacc	1380
76	tggtcggggc cacttggaag catccagaac agcaccacca tctaacggcc gctcgaggga	1440
78	agcaccggc ggtttgggc aagtc	1465

81 <210> SEQ ID NO: 2
 82 <211> LENGTH: 233
 83 <212> TYPE: PRT
 84 <213> ORGANISM: Homo sapiens

ENTERED

RAW SEQUENCE LISTING

DATE: 10/29/2001

PATENT APPLICATION: US/09/854,864

TIME: 10:07:13

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10292001\I854864.raw

86 <400> SEQUENCE: 2

```

88 Met Gly Gly Pro Val Arg Glu Pro Ala Leu Ser Val Ala Leu Trp Leu
89 1          5          10          15
92 Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala Met Ala Leu Leu
93          20          25          30
96 Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg Glu Val Ser Arg Leu
97          35          40          45
100 Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly Glu Gly Tyr Pro Trp Gln
101          50          55          60
104 Ser Leu Pro Glu Gln Ser Ser Asp Ala Leu Glu Ala Trp Glu Ser Gly
105 65          70          75          80
108 Glu Arg Ser Arg Lys Arg Arg Ala Val Leu Thr Gln Lys Gln Lys Lys
109          85          90          95
112 Gln His Ser Val Leu His Leu Val Pro Ile Asn Ala Thr Ser Lys Asp
113          100          105          110
116 Asp Ser Asp Val Thr Glu Val Met Trp Gln Pro Ala Leu Arg Arg Gly
117          115          120          125
120 Arg Gly Leu Gln Ala Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala Gly
121          130          135          140
124 Val Tyr Leu Leu Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe Thr
125 145          150          155          160
128 Met Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr Leu
129          165          170          175
132 Phe Arg Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr Asn
133          180          185          190
136 Ser Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Leu
137          195          200          205
140 Ser Val Ile Ile Pro Arg Ala Arg Ala Lys Leu Asn Leu Ser Pro His
141          210          215          220
144 Gly Thr Phe Leu Gly Phe Val Lys Leu
145 225          230

```

148 <210> SEQ ID NO: 3

149 <211> LENGTH: 1486

150 <212> TYPE: DNA

151 <213> ORGANISM: Mus musculus

153 <400> SEQUENCE: 3

```

154 catgccgagt gctttgtgtg tgttacctgc tctaagaagc tggctgggca gcgtttcacc      60
156 gctgtggagg accagtatta ctgcgtggat tgctacaaga actttgtggc caagaagtgt      120
158 gctggatgca agaaccccat cactgggttt ggtaaaaggct ccagtgtggt ggcctatgaa      180
160 ggacaatcct ggcacgacta ctgcttcacac tgcaaaaaaat gctccgtgaa tctggccaac      240
162 aagcgctttg tatttcataa tgagcagggtg tattgccctg actgtgccaa aaagctgtaa      300
164 cttgacggct gccctgtcct tcctagataa tggcaccaaa ttctcctgag gctagggggg      360
166 aaggagtgtc agagtgtcac tagctcgacc ctgggggacaa gggggactaa tagtacccta      420
168 gcttgatttc ttctatttct caagttcctt tttattttct ccttgcgtaa cccgctcttc      480
170 ccttctgtgc ctttgctgtg attcccaccc tccctgctac ctcttgacca cctcacttct      540
172 gagaccacag ctgttggcag ggtccctagc tcatgccagc ctcattctca ggccacatgg      600
174 ggggctcagt cagagagcca gccctttcgg ttgctctttg gttgagttgg ggggcagttc      660
176 tgggggctgt gacttgtgct gtcgcactac tgatccaaca gacagagctg caaagcctaa      720
178 ggcgggaggt gagccggctg cagcggagtg gagggccttc ccagaagcag ggagagcgcc      780

```

RAW SEQUENCE LISTING

DATE: 10/29/2001

PATENT APPLICATION: US/09/854,864

TIME: 10:07:13

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10292001\I854864.raw

```

180 catggcagag cctctgggag cagagtcttg atgtcttgga agcctggaag gatggggcga      840
182 aatctcggag aaggagagca gtactcaccc agaagcaca gaagaagcac tcagtcctgc      900
184 atcttggtcc agttaacatt acctccaagg actctgacgt gacagaggtg atgtggcaac      960
186 cagtacttag gcgtgggaga ggcctggagg cccagggaga cattgtacga gtctgggaca     1020
188 ctggaattta tctgtcttat agtcagggtcc tgtttcatga tgtgactttc acaatgggtc     1080
190 aggtggtatc tcgggaagga caaggagaga gagaaactct attccgatgt atcagaagta     1140
192 tgcctttctga tcttgacctg gcctacaata gctgctacag tgcaggtgtc tttcatattc     1200
194 atcaagggga tattatcact gtcaaaattc cacgggcaaa cgcaaaactt agcctttctc     1260
196 cgcattggaac attcctgggg tttgtgaaac tatgattgtt ataaaggggg tggggatttc     1320
198 ccattccaaa aactggctag acaaaggaca aggaacgggc aagaacagct ctccatggct     1380
200 ttgccttgac tgttgttcct ccttttgctt ttcccgtccc cactatctgg gctttgactc     1440
202 catggatatt aaaaaagtag aatattttgt gtttatctcc caaaaaa      1486
205 <210> SEQ ID NO: 4
206 <211> LENGTH: 240
207 <212> TYPE: PRT
208 <213> ORGANISM: Mus musculus
210 <400> SEQUENCE: 4
212 Met Pro Ala Ser Ser Pro Gly His Met Gly Gly Ser Val Arg Glu Pro
213 1 5 10 15
216 Ala Leu Ser Val Ala Leu Trp Leu Ser Trp Gly Ala Val Leu Gly Ala
217 20 25 30
220 Val Thr Cys Ala Val Ala Leu Leu Ile Gln Gln Thr Glu Leu Gln Ser
221 35 40 45
224 Leu Arg Arg Glu Val Ser Arg Leu Gln Arg Ser Gly Gly Pro Ser Gln
225 50 55 60
228 Lys Gln Gly Glu Arg Pro Trp Gln Ser Leu Trp Glu Gln Ser Pro Asp
229 65 70 75 80
232 Val Leu Glu Ala Trp Lys Asp Gly Ala Lys Ser Arg Arg Arg Arg Ala
233 85 90 95
236 Val Leu Thr Gln Lys His Lys Lys Lys His Ser Val Leu His Leu Val
237 100 105 110
240 Pro Val Asn Ile Thr Ser Lys Asp Ser Asp Val Thr Glu Val Met Trp
241 115 120 125
244 Gln Pro Val Leu Arg Arg Gly Arg Gly Leu Glu Ala Gln Gly Asp Ile
245 130 135 140
248 Val Arg Val Trp Asp Thr Gly Ile Tyr Leu Leu Tyr Ser Gln Val Leu
249 145 150 155 160
252 Phe His Asp Val Thr Phe Thr Met Gly Gln Val Val Ser Arg Glu Gly
253 165 170 175
256 Gln Gly Arg Arg Glu Thr Leu Phe Arg Cys Ile Arg Ser Met Pro Ser
257 180 185 190
260 Asp Pro Asp Arg Ala Tyr Asn Ser Cys Tyr Ser Ala Gly Val Phe His
261 195 200 205
264 Leu His Gln Gly Asp Ile Ile Thr Val Lys Ile Pro Arg Ala Asn Ala
265 210 215 220
268 Lys Leu Ser Leu Ser Pro His Gly Thr Phe Leu Gly Phe Val Lys Leu
269 225 230 235 240
272 <210> SEQ ID NO: 5
273 <211> LENGTH: 181

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/854,864

DATE: 10/29/2001

TIME: 10:07:14

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10292001\I854864.raw

```

274 <212> TYPE: PRT
275 <213> ORGANISM: Homo sapiens
277 <400> SEQUENCE: 5
279 Met Ala Gly Gln Cys Ser Gln Asn Glu Tyr Phe Asp Ser Leu Leu His
280 1 5 10 15
283 Ala Cys Ile Pro Cys Gln Leu Arg Cys Ser Ser Asn Thr Pro Pro Leu
284 20 25 30
287 Thr Cys Gln Arg Tyr Cys Asn Ala Ser Val Thr Asn Ser Val Lys Gly
288 35 40 45
291 Thr Asn Ala Ile Leu Trp Thr Cys Leu Gly Leu Ser Leu Ile Ile Ser
292 50 55 60
295 Leu Ala Val Phe Val Leu Met Phe Leu Leu Arg Lys Ile Ser Ser Glu
296 65 70 75 80
299 Pro Leu Lys Asp Glu Phe Lys Asn Thr Gly Ser Gly Leu Leu Gly Met
300 85 90 95
303 Ala Asn Ile Asp Leu Glu Lys Ser Arg Thr Gly Asp Glu Ile Ile Leu
304 100 105 110
307 Pro Arg Gly Leu Glu Tyr Thr Val Glu Glu Cys Thr Cys Glu Asp Cys
308 115 120 125
311 Ile Lys Ser Lys Pro Lys Val Asp Ser Asp His Cys Phe Pro Leu Pro
312 130 135 140
315 Ala Met Glu Glu Gly Ala Thr Ile Leu Val Thr Thr Lys Thr Asn Asp
316 145 150 155 160
319 Tyr Cys Lys Ser Leu Pro Ala Ala Leu Ser Ala Thr Glu Ile Glu Lys
320 165 170 175
323 Ser Ile Ser Ala Arg
324 180
327 <210> SEQ ID NO: 6
328 <211> LENGTH: 51
329 <212> TYPE: PRT
330 <213> ORGANISM: Homo sapiens
332 <400> SEQUENCE: 6
334 Met Ala Gly Gln Cys Ser Gln Asn Glu Tyr Phe Asp Ser Leu Leu His
335 1 5 10 15
338 Ala Cys Ile Pro Cys Gln Leu Arg Cys Ser Ser Asn Thr Pro Pro Leu
339 20 25 30
342 Thr Cys Gln Arg Tyr Cys Asn Ala Ser Val Thr Asn Ser Val Lys Gly
343 35 40 45
346 Thr Asn Ala
347 50
350 <210> SEQ ID NO: 7
351 <211> LENGTH: 34
352 <212> TYPE: PRT
353 <213> ORGANISM: Homo sapiens
355 <400> SEQUENCE: 7
357 Cys Ser Gln Asn Glu Tyr Phe Asp Ser Leu Leu His Ala Cys Ile Pro
358 1 5 10 15
361 Cys Gln Leu Arg Cys Ser Ser Asn Thr Pro Pro Leu Thr Cys Gln Arg
362 20 25 30

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/854,864

DATE: 10/29/2001

TIME: 10:07:14

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10292001\I854864.raw

```

365 Tyr Cys
369 <210> SEQ ID NO: 8
370 <211> LENGTH: 21
371 <212> TYPE: PRT
372 <213> ORGANISM: Homo sapiens
374 <400> SEQUENCE: 8
376 Ile Leu Trp Thr Cys Leu Gly Leu Ser Leu Ile Ile Ser Leu Ala Val
377 1 5 10 15
380 Phe Val Leu Met Phe
381 20
384 <210> SEQ ID NO: 9
385 <211> LENGTH: 283
386 <212> TYPE: PRT
387 <213> ORGANISM: Homo sapiens
389 <400> SEQUENCE: 9
391 Met Ala Gly Gln Cys Ser Gln Asn Glu Tyr Phe Asp Ser Leu Leu His
392 1 5 10 15
395 Ala Cys Ile Pro Cys Gln Leu Arg Cys Ser Ser Asn Thr Pro Pro Leu
396 20 25 30
399 Thr Cys Gln Arg Tyr Cys Asn Ala Ser Val Thr Asn Ser Val Lys Gly
400 35 40 45
403 Thr Asn Ala Gly Gly Gly Gly Gly Asp Lys Thr His Thr Cys Pro Pro
404 50 55 60
407 Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
408 65 70 75 80
411 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
412 85 90 95
415 Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
416 100 105 110
419 Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
420 115 120 125
423 Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
424 130 135 140
427 Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
428 145 150 155 160
431 Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
432 165 170 175
435 Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
436 180 185 190
439 Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
440 195 200 205
443 Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
444 210 215 220
447 Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
448 225 230 235 240
451 Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
452 245 250 255
455 Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
456 260 265 270

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/854,864

DATE: 10/29/2001

TIME: 10:07:15

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10292001\I854864.raw

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:1072 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22